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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT PAPER NUMBER

2613

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,269

Applicant(s)

SHIN ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al., (hereinafter referred to as "Gupta") in view of Das et al., (hereinafter referred to as "Das") and Elfrig et al., (hereinafter referred to as "Elfrig").

Gupta discloses a moving picture (Gupta: column 8, lines 53-59) mailing system (Gupta: column 3, lines 49-65), comprising: a video signal capturing device for capturing digital video signal information of moving pictures (Gupta: column 3, lines 30-38); an audio signal capturing device for capturing digital audio signals from audio signal information of moving pictures (Gupta: column 5, lines 4-8); a moving picture recorder for respectively receiving the video and audio signals (Gupta: column 3, lines 55-68) and transmitting the combined bit streams to a moving picture mail server (Gupta: column 6, lines 39-67), as in claim 1. Even though Gupta discloses knowledge of MPEG-4 for multimedia composition (Gupta: column 1, lines 50-55), the

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reference fails to disclose the use of MPEG-4 video and audio compression prior to transmission and multiplexing of the compressed signals as in claim 1. Das discloses that MPEG-4 is desirable for multimedia (i.e. audio/video) compression (Das: column 1, lines 23-30; column 14, lines 25-67) because it allows for object/content scalability in order to transmit the multimedia stream at a high quality across a limited or dynamically varying bandwidth (Das: column 2, lines 25-44). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Das teaching of audio and video compression techniques according to MPEG-4 into the Gupta moving picture mailing system in order to allow for the Gupta system to transmit multimedia streams across either limited bandwidths or dynamically varying bandwidths. The Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques, has a majority of the features of claim 1, but still fails to disclose the use of a multiplexer for combining the streams as recited in the claim. Eifrig discloses an MPEG-4 compression system (Eifrig: figure 1) employing a multiplexer in coding in order to allow for individual VOP manipulation in composition (Eifrig: column 4, lines 45-60). It would have been obvious for one of ordinary skill in the art to incorporate the use Eifrig's multiplexer into the Gupta-Das system in order to allow for individual VOP manipulation in composition. The Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has all of the features of claim 1.

Regarding claim 2, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has an MPEG-4 video encoder for compressing the video signals captured by the video signal capturing device (Das: column 2, lines 15-20; column 4, lines 55-67), an MPEG-4 audio encoder for compressing the audio signals

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captured by the audio signal capturing device (Das: column 1, lines 23-27), and an MPEG-4 multiplexer (Eifrig: column 7, lines 5-12; column 4, lines 45-57), as specified.

Regarding claim 3, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has a memory for temporarily storing the bit streams output by the multiplexer (Eifrig: column 4, lines 57-67), as in the claim.

Regarding claims 4-5, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has a format converter (Eifrig: column 4, lines 30-38; column 6, lines 30-40), as in the claims.

Regarding claim 6, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has an audio format converter as in the claim (Das: column 1, lines 25-27), as in the claim.

Regarding claim 7, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has the MPEG-4 encoder as a simple profile encoder for the video part (Eifrig: column 15, lines 14-67), as in the claim.

Regarding claim 8, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has a CELP encoder for the audio part (Das: column 1, lines 25-30), as in the claim.

Regarding claims 9-10, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has varying frame rates for compressing signals (Das: column 14, lines 25-65) according to hardware performance (Das: column 16, lines 43-67), as in the claims.

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Regarding claims 11-12, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has the multiplexer combining various frames and digital video data (Eifrig: column 6, lines 37-65), as in the claims.

Regarding claims 13-14, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has decompression of the audio and video signals as compressed (Eifrig: column 4, lines 50-55), as in the claims.

Regarding claim 15, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has the moving picture recorder and player being downloaded from the moving picture mailing server to be installed by a user (Gupta: column 4, lines 1-20), as in the claim.

Regarding claims 16-17, the Gupta system, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig multiplexer, has the execution of automatic download automatic execution program (Gupta: column 4, lines 1-18), as in the claims.

Gupta discloses a moving picture (Gupta: column 8, lines 53-59) mailing method (Gupta: column 3, lines 49-65; column 20, lines 64-67), comprising: capturing digital video and (Gupta: column 3, lines 30-38) audio signal s(Gupta: column 5, lines 4-8) from information of moving pictures (Gupta; column 3, lines 29-30), as in claim 1. Even though Gupta discloses knowledge of MPEG-4 for multimedia composition (Gupta: column 1, lines 50-55), the reference fails to disclose the use of MPEG-4 video and audio compression prior to transmission and multiplexing of the compressed signals as in claim 1. Das discloses that MPEG-4 is desirable for multimedia (i.e. audio/video) compression (Das: column 1, lines 23-30; column 14, lines 25-67) because it allows for object/content scalability in order to transmit the multimedia stream at a high quality

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across a limited or dynamically varying bandwidth (Das: column 2, lines 25-44). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Das teaching of audio and video compression techniques according to MPEG-4 into the Gupta moving picture mailing method in order to allow for the Gupta method to transmit multimedia streams across either limited bandwidths or dynamically varying bandwidths. The Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques, has a majority of the features of claim 18, but still fails to disclose the use of a multiplexer for combining the streams as recited in the claim. Eifrig discloses an MPEG-4 compression method (Eifrig: figure 1) employing a multiplexer in coding in order to allow for individual VOP manipulation in composition (Eifrig: column 4, lines 45-60). It would have been obvious for one of ordinary skill in the art to incorporate the use Eifrig's multiplexer into the Gupta-Das method in order to allow for individual VOP manipulation in composition. The Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and the Eifrig use of multiplexer, has all of the features of claim 18.

Regarding claims 19, the Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and Eifrig's use of a multiplexer, has a format converter (Eifrig: column 4, lines 30-38; column 6, lines 30-40), as in the claims.

Regarding claim 20, the Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and Eifrig's use of a multiplexer, has the MPEG-4 encoder as a simple profile encoder for the video part (Eifrig: column 15, lines 14-67), as in the claim.

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Regarding claim 21, the Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and Eifrig's use of a multiplexer, has a CELP encoder for the audio part (Das: column 1, lines 25-30), as in the claim.

Regarding claims 22-23, the Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and Eifrig's use of a multiplexer, has varying frame rates for compressing signals (Das: column 14, lines 25-65) according to hardware performance (Das: column 16, lines 43-67), as in the claims.

Regarding claim 24, the Gupta method, now incorporating the Das MPEG-4 audio and video compression techniques and Eifrig's use of a multiplexer, has decompression of the audio and video signals as compressed (Eifrig: column 4, lines 50-55), as in the claim.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kodama discloses a video encoding apparatus. Walters discloses a video mail delivery system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

ANDY RAO
PRIMARY EXAMINER

asr

July 14, 2004